

Universal Design for Learning (UDL)

— Planning Lessons for the Inclusive Classroom —

University of Hawai'i at Mānoa Kavita Rao

Abstract

Teachers must be prepared to address learner variability in the classroom and engage students who have a range of abilities, interests, preferences and experiences. As part of a core curriculum for teacher education, it is essential for future teachers to learn ways to address the needs of a range of learners in their classrooms. The Universal Design for Learning (UDL) framework focuses on the provision of supports and scaffolds that can make curriculum more accessible for all learners. Using Universal Design for Learning (UDL), teachers can proactively design inclusive lessons that integrate varied supports, while maintaining high expectations for students with and without disabilities. This session will describe how instruction on UDL and the UDL Design Cycle can be embedded within a teacher education curriculum, giving pre-service teachers a foundation for inclusive lesson planning that they can apply as they develop their teaching skills.

Universal Design for Learning (UDL): Planning Lessons for the Inclusive Classroom

Dr. Kavita Rao
University of Hawai'i at Mānoa

September 18, 2018

How can you design lessons that include all learners?

CAST CAST Learning for all		
認知能力の多様な方法 を教える方法	提示 (理解) のための多様な方法 を教える方法	行動と表現のための多様な方法 を教える方法
興味を持つ 1. 興味を喚起する 2. 関心を引き出す 3. 関心を引き出す	知る 1. 知る 2. 知る 3. 知る	身体動作 1. 身体動作 2. 身体動作 3. 身体動作
能力やがんばりを認める 1. 能力やがんばりを認める 2. 能力やがんばりを認める 3. 能力やがんばりを認める	表現、形式、記号 1. 表現、形式、記号 2. 表現、形式、記号 3. 表現、形式、記号	表出やコミュニケーション 1. 表出やコミュニケーション 2. 表出やコミュニケーション 3. 表出やコミュニケーション
自己調整 1. 自己調整 2. 自己調整 3. 自己調整	理解 1. 理解 2. 理解 3. 理解	実行機能 1. 実行機能 2. 実行機能 3. 実行機能

With UDL:

CAST CAST Learning for all		
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自己調整 1. 自己調整 2. 自己調整 3. 自己調整	理解 1. 理解 2. 理解 3. 理解	実行機能 1. 実行機能 2. 実行機能 3. 実行機能

reduce barriers to learning
support learner variability

Learner variability

All students have different:

Preferences

Abilities

Motivation



Needs

Experiences

Background

Designing for difference



We can see some differences and design for them

(for example, foot size)



We can also design for differences we cannot see

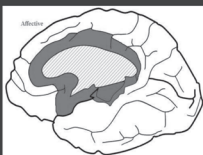
(for example, different ways of learning)



The barrier is not in the student, the barriers are in the curriculum.

-Dr. David Rose,
Co-founder of CAST

Three learning networks



Engagement

WHY

Motivation



Representation

WHAT

Understanding

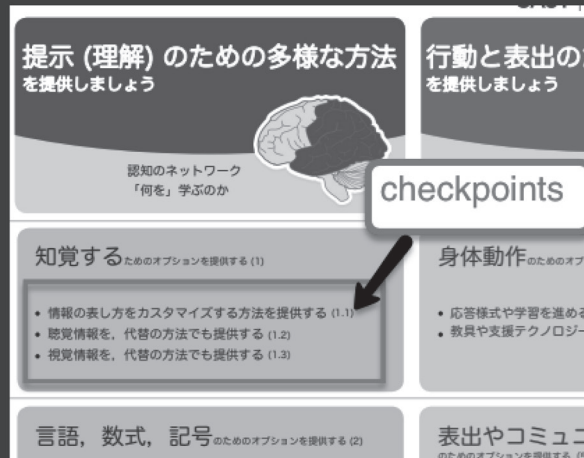


Expression and Action

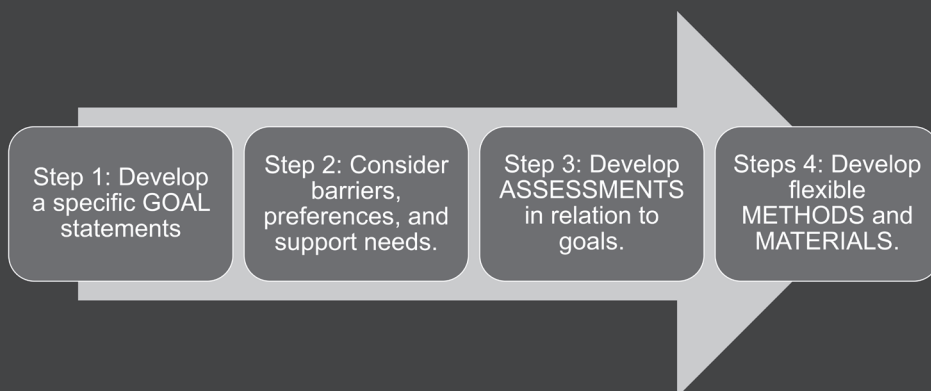
HOW

Processing and
expressing

UDL Principles, Guidelines and Checkpoints



UDL Design Cycle




Step 1: Develop goal statements

Question:	Example:
What are the goals for this lesson?	Students will: 1. Practice solving linear equations 2. Use the vocabulary of math in context


Step 2: Consider barriers, needs, and preferences

Question:	Example:
What are the barriers?	<u>Specific:</u> Challenges w/ concepts and vocabulary Difficulty with step by step process
What are my students' needs and preferences?	<u>General:</u> Anxiety with math Boredom, disengagement <u>Preferences</u> Social vs. independent Write vs. talk

Step 3: Assessments

Question:	Example:
<p>How can I assess students' progress towards the goals?</p> 	<p>Formative Assessment</p> <ul style="list-style-type: none"> Process of developing projects in collaboration with others – teacher observed this and gave feedback as students practiced <p>Summative assessment:</p> <ul style="list-style-type: none"> Multimedia project - student explanation of the equation (using Educreations)

Step 4: Methods and Materials

Question:	Examples:
<p>What methods and materials will add flexibility and support?</p> 	<p><u>Methods:</u></p> <ul style="list-style-type: none"> Teacher created models/examples Teacher provided clear expectations for end result Students had opportunities to practice and master the skills before recording Students could make choices (to work alone or with partner) <p><u>Materials:</u></p> <ul style="list-style-type: none"> Multimodal tool (Educreations) allowed students to write and talk Checklist of expectations

Student project



$$\begin{array}{rcl}
 3\underline{x} + 3\underline{x} + 2\underline{x} & = & 88 \\
 \underline{8x} & = & \underline{88} \\
 8 & & 8 \\
 x & = & 1
 \end{array}$$

UDL Checkpoints and Lesson Components

Lesson Component	Connections with UDL	UDL Checkpoints
Goals	Practice solving linear equations Use the vocabulary of math in context	
Assessment	Formative: Process of developing projects in collaboration with others Summative: Multimedia project - student explanation of the equation	4.1, 5.2, 5.3, 6.1, 6.2, 8.3
Methods	<ul style="list-style-type: none"> Modeling of expectations Clear expectations/self-regulation Opportunities to practice Mastery-oriented feedback Various ways to express (write and talk) Choice to work in different formats (partners/individual) 	2.1, 2.3, 3.1, 5.3, 6.2, 7.1, 8.1,
Materials	<ul style="list-style-type: none"> Multimodal tool (Educreations) Checklist 	4.1, 5.1, 9.1

Questions?



(かう*いた らお ハワイ大学マノア校)